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EXAMINER

YANG, RYAN R

ART UNIT

PAPER NUMBER

2672

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/895,236

Applicant(s)

ALFORD ET AL.

Examiner

Ryan R. Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to communications: Amendment, filed on 12/20/2004.

This action is non-final.

2. Claims 1-36 are pending in this application. Claims 1, 17-18 and 35 are independent claims. In the Amendment, filed on 06/07/2004, claims 1, 3, 6, 7, 10, 11, 17-18, 20, 23, 24, 27, 28, 34 and 35 were amended, and claims 37-44 were added.

3. The present title of the invention is "Graphical user interface for visualization of sampled data compared to entitled or reference levels" as filed originally.

### ***Claim Rejections - 35 USC § 103***

4 The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-6, 14-23, 31, 34-35 and 40 are rejected under 35 U.S.C. 103(e) as being anticipated by Bhatt et al. (6,097,399) and further in view of Fisher et al. (5,440,478).

6. As per claim 1, Bhatt et al., hereinafter Bhatt, discloses a method for displaying resource utilization information for a plurality of resources in a data processing system, comprising the steps of:

classifying each of a plurality of application processes operating on the data processing system into one of a plurality of process classifications (Figure 5A P1, P2 and P3; "The aggregated data sent to the display via the control signals will be

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arranged on a display 6 in one or more display elements 8", column 6, line 23-25, where the display elements are process classifications); and

for each process classification, performing the following steps:

determining a time period in which to measure the resource utilization information (the aggregation interval,  $A_i$ , column 7, line 35);

monitoring the resource utilization information based on the time period ("The aggregation may combine data by techniques such as averaging, min/max, critical threshold", column 2, line 40-41); and

displaying a result of the monitoring of the resource utilization information, wherein the result of the monitoring of the resource utilization information is dynamically displayed so as to provide an indication of utilization of a resource within the plurality of resources relative to a reference resource entitlement level (Figure 5B where P1, P2 and P3 are graphs indicating amount of utilization of processors, since the data is periodically updated, the utilization is dynamically updated; and Figure 10A where the degree of shading indicates level of utilization and, therefore, is level of entitlement for utilization).

Bhatt discloses a method for displaying resource utilization information for a plurality of resources. It is noted that Bhatt is silent about the process is an application process "wherein each application process classifications is defined by a classification rule using at least one of attributes identifying a user that submitted one or more of the application processes, a group that submitted one or more of the application processes and a fully qualified path of one or more of the application processes", however, this is

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known in the art as taught by Fisher et al., hereinafter Fisher. Fisher discloses a process control method in which application processes are classified into one of a plurality of process classifications (Figure 2 or 3 where the company name and identification of the report are the user and the company is the user that submitted the application process; "We also prefer to sort the collected data across some or all of the characteristic fields which appear in boxes 45 and 48 thru 54. The sorted data could then be presented in tables, graphs or other types of reports", column 7, line 18-21 wherein the characteristic fields are the classification rules).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fisher into Bhatt because Bhatt discloses a method for displaying resource utilization information for a plurality of resources and Fisher discloses that the user can be identified and the associated data classified in order to provide for more meaningful process analysis.

7. As per claim 17, Bhatt discloses a system, comprising:

- a bus system (Figure 2A 2);

- a memory, including a set of instructions, connected to the bus system (Figure 2A 3);

- an output unit connected to the bus system ((Figure 2A 6); and

- a processing unit connected to the bus system (Figure 2A 3), and all the rest of the elements as disclosed in rejected claim 1, and therefore is similarly rejected as claim 1.

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8. As per claim 18, Bhatt discloses a data processing system for displaying resource utilization information for a plurality of resources, comprising all the means elements as in claim 1, and therefore is similarly rejected as claim 1.

9. As per claims 2 and 19, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1 and 18, supra, respectively, and Bhatt further discloses the resource utilization information is used to determine a percentage of system resources utilized based on the time period relative to other resources in the same time period (Figure 5A where P1, P2 and P3 show utilization in percentage in an aggregation time period).

10. As per claims 3 and 20, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1 and 18, supra, respectively, and Bhatt further discloses displaying the result of the resource utilization information is displayed in a utilization range (Figure 4A where the graph display a utilization range centered on average).

11. As per claims 4 and 21, Bhatt and Fisher demonstrated all the elements as applied to the rejection of dependent claims 3 and 20, supra, respectively, and Fisher further discloses the utilization range is defined by a standard deviation between the utilization of the resource and a target utilization for the resource (see the equation defining CPK, column 2, line 36-44).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fisher into Bhatt because Bhatt discloses a method for displaying resource utilization information for a plurality of

resources and Fisher discloses the utilization range can be defined in a way to provide for more meaningful process analysis.

12. As per claims 5 and 22, Bhatt and Fisher demonstrated all the elements as applied to the rejection of dependent claims 4 and 21, *supra*, respectively, and Fisher further discloses the standard deviation is at least one of a deviation within a predetermined percentage of the target utilization and a deviation within a predetermined distance from the target utilization (where the deviation is defined as  $3\sigma$ , column 2, line 41).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fisher into Bhatt because Bhatt discloses a method for displaying resource utilization information for a plurality of resources and Fisher discloses the utilization range can be defined in a way to provide for more meaningful process analysis.

13. As per claims 6 and 23, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1 and 18, *supra*, respectively, and Bhatt further discloses displaying the result of the monitoring of the resource utilization information is displayed in a graphical user interface (Figure 5A where 20 is the interface).

14. As per claims 14 and 31, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1 and 18, *supra*, and Bhatt further discloses displaying a result of the monitoring of the resource utilization information is displayed in a plurality of colors (Figure 6 "If some are send and some are received,

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the send-receive color is used (i.e., black in this case) ... the color of the processor may be graduated from dark to light based n the division of sends and receives", column 12 , line 9-17).

As per claims 15 and 32, Bhatt and Fisher demonstrated all the elements as applied to the rejection of dependent claims 14 and 31, supra, respectively, and Bhatt further discloses the plurality of colors includes a first color and a second color ("the color of the processor may be graduated from dark to light based n the division of sends and receives", column 12, line 15-17, which includes two colors.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to chose only two of the color already described in the prior art in order to represent the two states of processing).

15. As per claims 16 and 33, Bhatt and Fisher demonstrated all the elements as applied to the rejection of dependent claims 15 and 32, supra, respectively, and Bhatt further discloses the first color is black and the second color is white ("the color of the processor may be graduated from dark to light based n the division of sends and receives", column 12, line 15-17. Since black and white are two of the color used in the color spectrum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to chose the already well known color in order to represent the two states of processing).

16. As per claims 34 and 40, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 18 and 1, supra, respectively.



Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources. As for the reference resource entitlement level is optional, since one of ordinary skill would know how to make a function to run or not to run by just changing the computer code, it is clearly a designer's choice in order to make the display routine more flexible.

17. As per claim 35, Bhatt discloses a computer program product in a computer-readable medium for displaying resource utilization information for a plurality of resources (Figure 2A- 3 where it is typically implemented as software, column 5, line 29), comprising all the elements as in claim 1, and therefore is similarly rejected as claim 1.

18. Claims 7-9 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al. and Fisher as applied to claim 1 above, and further in view of Rassman et al. (4,937,743).

As per claims 7 and 24, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1 and 18, supra, respectively.

Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources. It is noted that Bhatt and Fisher do not explicitly disclose the display of the result of the monitoring of the resource utilization information is displayed with an indicator, wherein the position of indicator indicates a current utilization of the resource, however, this is known in the art as taught by Rassman et al., hereinafter Rassman. Rassman discloses a method of monitoring network utilization in which the amount of utilization is shown by an indicator (Figure 1A-1E

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where the vertical line or circle is the status indicia indicating current utilization of the resource).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rassman into Bhatt and Fisher because Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources and Rassman discloses the utilization can be shown with an indicator in order to easily determine the amount of utilization.

19. As per claims 8 and 25, Bhatt, Fisher and Rassman demonstrated all the elements as applied to the rejection of dependent claims 7 and 24, supra, respectively, and Rassman further discloses the current utilization of the resource is a range of current utilization of the resource (Figure 1A where the rectangle is a range of current utilization of the resource).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rassman into Bhatt and Fisher because Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources and Rassman discloses the utilization can be shown with an indicator in order to easily determine the amount of utilization.

20. As per claims 9 and 26, Bhatt, Fisher and Rassman demonstrated all the elements as applied to the rejection of dependent claims 8 and 25, supra, respectively, and Rassman further discloses the indicator is placed within the range of current utilization of a resource (Figure 1A where the vertical line is placed within the range of current utilization of a resource).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rassman into Bhatt and Fisher because Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources and Rassman discloses the utilization can be shown with an indicator in order to easily determine the amount of utilization.

21. Claims 10-11 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al., Fisher and Rassman et al. as applied to claim 7 above, and further in view of Rochford et al. (6,487,604).

As per claims 10 and 27, Bhatt, Fisher and Rassman demonstrated all the elements as applied to the rejection of dependent claims 7 and 24, supra, respectively.

Bhatt, Fisher and Rassman disclose a method for displaying resource utilization information for a plurality of resources. It is noted that Bhatt, Fisher and Rassman do not explicitly disclose the indicator indicates a direction of current utilization of the resource, however, this is known in the art as taught by Rochford et al., hereinafter Rochford. Rochford discloses a network monitoring method in which the indicator indicates the direction of current utilization of the resource (Figure 3- items 70, 72, 74 and 76).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rochford into Bhatt, Fisher and Rassman because Bhatt, Fisher and Rassman disclose a method for displaying resource utilization information for a plurality of resources and Rochford discloses a

method of displaying the direction of current utilization in order to better predict the trend of utilization.

22. As per claims 11 and 28, Bhatt, Fisher, Rassman and Rochford demonstrated all the elements as applied to the rejection of dependent claims 10 and 27, *supra*, respectively, and Rochford discloses the direction of current utilization of a resource includes an increasing utilization and a decreasing utilization (Figure 3 where the cone shaped indicators can be in increased direction and decreased direction).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rochford into Bhatt, Fisher and Rassman because Bhatt, and Fisher and Rassman disclose a method for displaying resource utilization information for a plurality of resources and Rochford discloses a method of displaying the direction of current utilization in order to better predict the trend of utilization.

23. Claims 12-13, 29-30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al. and Fisher as applied to claim 1 above, and further in view of Haggard et al. (6,148,335).

As per claims 12, 29 and 36, Bhatt and Fisher demonstrated all the elements as applied to the rejection of independent claims 1, 18 and 35, *supra*, respectively.

Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources. It is noted that Bhatt and Fisher do not explicitly disclose monitoring a second utilization of the resource, wherein the second utilization of the resource occurs at later point in time of the first utilization of the resource and

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displaying results of the second utilization of the resource, however, this is known in the art as taught by Haggard et al., hereinafter Haggard. Haggard discloses a method of performance monitoring in which a plurality of utilization information of different time period are displayed (Figure 7).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Haggard into Bhatt and Fisher because Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources and Haggard discloses a plurality of utilization information of different time period can displayed be displayed for easy comparison.

24. As per claims 13 and 30, Bhatt, Fisher and Haggard demonstrated all the elements as applied to the rejection of dependent claims 12 and 29, supra, respectively, and Haggard further discloses the first utilization of the resource and the second utilization of the resource are displayed in a comparative manner (Figure 7 where the weekly utilization is displayed side by side).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Haggard into Bhatt and Fisher because Bhatt and Fisher disclose a method for displaying resource utilization information for a plurality of resources and Haggard discloses a plurality of utilization information of different time period can displayed be displayed for easy comparison.

25. As per claims 38 and 42, Bhatt and Fisher demonstrated all the elements as disclosed in the rejected claims 1 and 18, supra, respectively, and Fisher further discloses the classification rule identifies which attributes and values of those attributes

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that are to be includes in a particular class (Figure 2 or 3 where the company name and identification of the report are the user and the company is the user that submitted the application process; "We also prefer to sort the collected data across some or all of the characteristic fields which appear in boxes 45 and 48 thru 54. The sorted data could then be presented in tables, graphs or other types of reports", column 7, line 18-21 wherein the characteristic fields are the classification rules).

26. As per claims 39 and 43, Bhatt and Fisher demonstrated all the elements as disclosed in the rejected claims 1 and 18, supra, respectively, and further discloses

The resource utilization information is information pertaining to allocation or resources consumed within the data processing system (Figure 5A or 5B "Each display element represents the percentage of time spent in various activities for a different processor", column 10, line 23-25).

### ***Claim Rejections - 35 USC § 112***

27. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1, 17, 18 and 35 recites the limitation "application process" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-16, 19-34 and 36-44 are rejected because they are based on rejected claims.

28. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent

protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 34 and 40 recites the broad recitation "wherein the reference resource entitlement level is optional", and the claim also recites "to provide an indication of utilization of a resource within the plurality of resources relative to a reference resource entitlement level" which is the narrower statement of the range/limitation.

### ***Response to Arguments***

28. Applicant's arguments filed 12/20/2004 have been fully considered but they are not persuasive.


As per claims 1, 17, 18 and 35, applicant alleges Bhatt does not disclose "classifying each of a plurality of **application process**". In reply, examiner notes the specification does not clearly define what is an application process; examiner loosely interprets it as resource utilization.

**Conclusion**

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan R Yang whose telephone number is (571) 272-7666. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ryan Yang  
May 31, 2005